

REMARKS

By the present amendment, claim 1 has been amended to recite that a registration of the in-register authentication pattern is characterized by at least one of (a) said in-register authentication pattern is in register with respect to at least one portion of the shape of said security element, and (b) at least one portion of said front side and reverse side patterns is in register with respect to at least one portion of the other of said front side and reverse side patterns.

Further, claim 1 has been amended to recite that the registration of said authentication pattern is observable in transmitted light from the front side and from the reverse side of the security element.

Also, claim 1 has been amended to recite that said front side pattern is in the form of a front side geometric pattern and said reverse side pattern is in the form of a reverse side geometric pattern,

Support for the added recitations is found in the original application, for example, at least page 3, lines 7-10 and 13-19 and page 3, line 28 to page 4, line 4, and page 6, lines 18-21.

Claims 4-13, 15-16, and 20-21 have been amended accordingly, and also to remove expressions introduced by “especially” or “in particular,” and to improve presentation.

Claim 14 has been amended to recite that the security element has a medium which includes fibers.

Accordingly, claim 16 has been amended to recite that the medium is a fibrous sheet and claim 18 has been amended to recite that the medium is a complex of a fibrous sheet and a plastic film.

Method claim 23 has been amended according to claim 1.

New claims 25-29 have been added. Claim 25 depends on claim 1 and recites that the medium is a plastic film. Claim 26 corresponds to claim 18 before the present amendment but depends on claim 25. Claims 27-28 correspond to claim 20 but depend on claims 14 and 16, respectively. Claim 29 depends on claim 10 and recites particular luminescent patterns from claim 10.

Claims 1 and 4-29 are pending in the present application. Claims 1 and 23 are the only independent claims.

I. Rejections based on Kaule

In the Office Action, the following rejections are set forth:

- Claims 1, 6-8, 10, 12, and 23-24 are rejected under 35 U.S.C. 102(b) as anticipated by US 4,892,336 to Kaule et al. (“Kaule”).
- Claims 4 and 13-15 are rejected under 35 U.S.C. 103(a) as obvious over Kaule in view of US 4,493,093 to Melling et al. (“Melling”).
- Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as obvious over Kaule in view of Melling and further in view of US 4,897,300 to Boehm (“Boehm”).
- Claim 17 is rejected under 35 U.S.C. 103(a) as obvious over Kaule in view of Melling and further in view of allegedly admitted prior art (AAPA).

Reconsideration and withdrawal of the rejections is respectfully requested. Kaule describes a security thread whose authentication feature (successive observation of a, b, and c with optical effect when the observation angle is changed) can be observed only from a front

face (32) of the security thread. If one looks at a reverse face (30) of the security thread of Kaule, one sees all features a, b, and c simultaneously without any optical effect.

In contrast, in the presently claimed invention, the registration of said authentication pattern is observable in transmitted light from the front side and from the reverse side of the security element, wherein the registration of the in-register authentication pattern is characterized by at least one of (a) said in-register authentication pattern is in register with respect to at least one portion of the shape of said security element, and (b) at least one portion of said front side and reverse side patterns is in register with respect to at least one portion of the other of said front side and reverse side patterns, as recited in present claims 1 and 17.

An advantage of the presently claimed invention is that the security element of the presently claimed invention can be incorporated into a substrate without the need to orient the security element so that a particular face is visible. Another advantage is that the security element can be more easily incorporated into the thickness of a substrate because at least one of its faces will be likely to be located in the vicinity of a surface of the substrate.

Kaule is completely silent regarding the features of the presently claimed invention and their advantages. In particular, the security thread of Kaule requires observation from a particular face, and Kaule teaches disposing the thread so that this observation face is disposed at the upper surface of the substrate. Further, the other cited references fail to remedy these deficiencies of Kaule. Therefore, the presently claimed invention is not anticipated by Kaule, and not obvious over Kaule taken alone or in any combination with the other cited references.

In addition, with respect to the dependent claims, it is submitted that the combined features of each of these dependent claims are not taught or suggested by Kaule taken alone or in any combination with the other cited references.

In particular, with respect to claims 14-18 and 27-28, it is submitted that an advantage of a medium that includes fibers is that fibers make it possible to improve distribution and adhesion of the security element, for example, in a fibrous substrate.

Therefore, each of the dependent claims, and in particular, each of claims 14-18 and 27-28, is not obvious over the cited references taken alone or in any combination.

In view of the above, it is submitted that the rejections should be withdrawn.

II. Rejections based on Dames and Melling

In the Office Action, claims 1, 6-8, 10-12, 14, 16, and 18-22 are rejected under 35 U.S.C. 103(a) as obvious over US 5,697,649 to Dames et al. (“Dames”) in view of US 4,493,093 to Melling et al. (“Melling”).

Reconsideration and withdrawal of the rejection is respectfully requested.

The thread of Dames has relief patterns on only one side. Further, the thread of Melling may have colors (dye, fluorescent coating) on both sides (see Melling at col. 7, lines 1-2), and the thread of Melling may have a metal layer that may be magnetic (see Melling col. 5, lines 1-5), but the specific shapes of Melling are provided by the metallic layer, not the dye or fluorescent coatings, i.e., they are on only one side.

For example, Fig. 5c of Melling has a metallic (magnetic) layer 21 on the front side and dyes or fluorescent materials 23 on the front side and on the reverse side.

In contrast, in the presently claimed invention, the front side pattern is in the form of a front side geometric pattern and the reverse side pattern is in the form of a reverse side geometric pattern, and further, the registration of said authentication pattern is observable in transmitted light from the front side and from the reverse side of the security element, as recited in present claims 1 and 23.

An advantage of the presently claimed invention is that the security element of the presently claimed invention can be incorporated into a substrate without the need to orient the security element so that a particular face is visible. Another advantage is that the security element can be more easily incorporated into the thickness of a substrate because at least one of its faces will be likely to be located in the vicinity of a surface of the substrate.

Dames and Melling are completely silent regarding the features of the presently claimed invention and their advantages. In particular, the security thread of both Dames and Melling require observation from a particular face. In addition, Dames and Melling are completely silent regarding registration of their patterns either on the front side, on the reverse side, or both, let alone providing a registration that is observable in transmitted light from the front side and from the reverse side. Therefore, the presently claimed invention is not obvious over Dames and Melling taken alone or in any combination.

In addition, with respect to the dependent claims, it is submitted that the combined features of each of these dependent claims are not taught or suggested by Dames and Melling taken alone or in any combination. Therefore, each of the dependent claims is not obvious over the cited references taken alone or in any combination.

In view of the above, it is submitted that the rejection should be withdrawn.

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Art Unit: **2876**

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Attorney Docket No.: **062836**

Conclusion

In conclusion, the invention as presently claimed is patentable. It is believed that the claims are in allowable condition and a notice to that effect is earnestly requested.

If there is, in the Examiner's opinion, any outstanding issue and such issue may be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

If this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of the response period. Please charge the fee for such extension and any other fees which may be required to Deposit Account No. 50-2866.

Respectfully submitted,
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